

REMARKS

The Examiner is thanked for the performance of a thorough search. By this response, Claims 34 and 54 have been amended. Claims 1, 3–6, 28–33, 35–53, and 56–61 are canceled. Claims 62–98 are added. Hence, Claims 2, 34, 54, and 62–98 are pending in this application.

All issues raised in the Office Action are addressed hereinafter.

I. ADDED CLAIMS / AMENDMENTS

The added claims and amendments to the claims do not add any new matter to this application and are supported by the Specification as originally filed. The amendments to the claims were made to improve the readability and clarity of the claims and not necessarily for any reason related to patentability.

The canceled claims were canceled solely in the interest of expediting prosecution as to the pending claims, and not for any reason related to the patentability of the canceled claims.

Added Claims 62–77 and 83–98 recite or inherit by dependency at least one or more of the patentable features discussed below with respect to Claims 2 and 34. Claims 62–77 and 83–98 are therefore patentable over the cited references for at least one or more of the reasons discussed below.

Claims 78–82 are patentable over the cited references for at least the reason that the references do not teach or suggest the claimed combination of features: “receiving event notifications from one or more network entities; storing said event notifications at the apparatus; receiving one or more poll messages from one or more subscribing management applications; in response to the one or more poll messages, relaying the one or more event notifications to the subscribing management applications.”

II. CLAIM REJECTIONS BASED ON 35 U.S.C. § 112

Claim 28 stands rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite. Claim 28 is canceled, rendering the rejection moot. Removal of the rejection is respectfully requested.

III. REJECTION UNDER 35 U.S.C. § 102

Claims 1, 34 and 42 are rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent No. 7,433,941 (hereinafter "*Lavian*"). Applicants traverse the rejection. Reconsideration is respectfully requested.

CLAIM 34

Network administrators often utilize management applications, typically running on a network management station (NMS), to manage and monitor network elements, such as routers. However, use of management applications is often problematic when the management application lacks a reliable connection to the network elements it monitors. For example, firewall restrictions, devices that frequently go offline, or connection outages may all impair the ability of a management application to monitor a network element.

The method of Claim 34 addresses this and other problems partly by introducing the use of a management gateway to facilitate communications between management applications and network elements. Rather than send management requests to certain network elements directly, with Claim 34 the management application is configured to store requests at a management gateway. Moreover, Claim 34 recites that the network element replies to a request via the management gateway.

Claim 34 further addresses the problem of an inaccessible network element through the use of element-initiated polling. Rather than automatically forward management requests out to the network element as they are received, the method of Claim 34 recites that the network element sends a request (e.g. a poll request) to the management gateway asking the management gateway to send to the network element the requests that have been stored at the management gateway. In this manner, the network element effectively signals to the management gateway that the network element is ready and able to receive the requests. Consequently, the management gateway may buffer requests until a device is ready to receive them, thus ensuring that requests are not lost when the network element is inaccessible.

In contrast, *Lavian* describes a technique for reducing the amount of network traffic tied up in messages between an NMS and a network device, by shifting the logic for various NMS tasks to the network device. *Lavian* at abstract; col. 1, lines 45–53; col. 2, lines 5–7. To this end, a network device may be configured to download various applications that reflect different

aspects of the NMS's decision-making logic. *Lavian* at col. 3, lines 25–30, 52–54. For example, a device may download and execute an application that causes it to monitor bandwidth and then send a notification to the NMS when that bandwidth exceeds a certain amount. *Lavian* at col. 3, lines 56–61.

Generally speaking, the technique of Claim 34 may be likened to **having the network element “call home” for instructions, whereas *Lavian* simply shows that a network element may be given a more complicated set of instructions.** The two techniques are clearly different. Moreover, *Lavian* **fails to teach anything like the management gateway** of Claim 34. Consequently, *Lavian* fails to teach or suggest any of the following features of Claim 34:

- requesting a management gateway that is communicatively coupled to the network element to provide one or more management requests for a network element; wherein the one or more management requests have been stored at the management gateway by a management application;
- in response to said requesting, receiving from the management gateway at least a particular management request;
- in response to the particular management request, initiating at the network element communication of a reply to the particular management request, via the management gateway;

Nonetheless, the Office Action vaguely alleges that *Lavian* teaches all of these steps in *Lavian* at col. 4, lines 11–31. The Office Action is mistaken. This passage of *Lavian* describes nothing more than that a target device 112 comprises a port 206 and loop back address 207. There is no mention of a gateway of any kind—certainly target device 112 is not a device that stores management requests for other network elements, as recited of the management gateway in Claim 34.

Nor is any other aspect of *Lavian* a management gateway within this meaning. For example, none of the network devices in FIG. 1 function as management proxies. At best, application server 108 stores applications that may be downloaded by network devices. However, *Lavian*'s network devices do not poll application server 108 for management requests. Nor do *Lavian*'s network devices reply through the application server 108.

A proper anticipation rejection requires a single prior art reference to disclose each and every feature of a claim, *arranged as in the claim*. *E.g. Net Moneyin, Inc. v. Verisign, Inc.*, et al.

No. 2007-1565 (Fed. Cir. October 20, 2008) (slip op. at 3). For at least the foregoing reasons, *Lavian* fails to teach or suggest at least one element of independent Claim 34. Therefore, *Lavian* does not anticipate Claim 34 under 35 U.S.C. § 102. Reconsideration is respectfully requested.

CLAIMS 1 AND 42

Claims 1 and 42 are canceled, rendering the rejection as to Claims 1 and 42 moot. Removal of the rejection is respectfully requested.

IV. REJECTIONS UNDER 35 U.S.C. § 103

Claims 35-37 and 54-57 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Lavian* in view of U.S. Patent No. 6,003,084 (hereinafter “*Green*”).

Claims 28, 33, 48 and 53 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Green* in view of U.S. Patent No. 5,737,536 (hereinafter “*Herrmann*”).

Claims 38-41 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Lavian* in view *Green* and further in view of U.S. Patent No. 6,058,420 (hereinafter “*Davies*”).

Claims 2-6, 43-47 and 58-61 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Green*, in view of *Lavian*, and further in view of *Davies*.

Claims 29-32 and 49-52 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Green*, in view of *Davies* and further in view of *Herrmann*.

Except for Claims 2 and 54, each of the claims rejected under 35 U.S.C. § 103 are canceled, rendering the rejections of those claims moot. Applicants traverse the rejections as they apply to Claims 2 and 54.

CLAIM 2

Like Claim 34, the method of Claim 2 relies on the use of a management proxy (e.g. the management gateway recited in Claim 34). Claim 2 is written from the perspective of the management proxy, and thus recites the following steps performed “at a management proxy:”

receiving a request from a management application for interaction
with the network entity;
based at least upon the request from the management application,
creating a management request;

storing said management request in the management proxy while
awaiting a poll for the management request from the
network entity;
receiving a poll message from the network entity, said poll
message requesting from the management proxy any
available management requests applicable to the network
entity;
in response to the poll message:
selecting one or more management requests stored in the
management proxy that match the network entity;
and
delivering the selected one or more management requests to
the network entity;
wherein the management proxy is external to the management
application and the network entity.

The cited references fail to teach or suggest such a method for at least the following reasons.

(1) The references do not teach a management proxy

The Office Action appears to allege that *Green* teaches Claim 2's concept of a management proxy in a single sentence found in *Green*, col. 10, lines 8–9. This sentence reads:

The Sidewinder TCP/IP software replies to the connection request
and passes the calling information to the proxy.

The Office Action alleges that Sidewinder, operating at a server 216, is a management application, and that the above sentence makes it clear that the Sidewinder software relies upon a management proxy within the meaning of Claim 2. The Office Action is in error.

***Green's* proxy 212 bears almost no similarity to the management proxy of Claim 2,** as confirmed by the fact that the Office Action relies upon the proxy 212 to teach but one step performed by Claim 2's management proxy: "receiving a request from a management application for interaction with a network entity." And, in fact, even the Office Action's reliance upon proxy 212 to teach that feature is mistaken. Proxy 212 does not receive the request from a management application; rather proxy 212 receives the request from client 214. Proxy 212 cannot, then, teach or suggest the management proxy of Claim 2. In essence, the Office Action can rely upon *Green* for nothing more than the fact proxies may be placed between a server and a client.

Meanwhile, *Davies* describes a system comprised of a poller, server, database, and clients. *E.g. Davies* at col. 3, lines 24–26. None of these devices are management proxies within the meaning of Claim 2. It is readily apparent that *Davies*' server, clients, and database are not proxies in any sense, while *Davies*' poller is nothing more than a module that monitors interfaces via SNMP GET messages to determine if they are reachable. *Davies* at col. 3, lines 35–45. None of the devices described in *Davies* function as the management proxy of Claim 2.

Finally, section III above explains that *Levian* does not teach a management gateway within the meaning of Claim 34. For similar reasons, *Levian* does not teach the management proxy within the meaning of Claim 2.

Nor, for the reasons explained below, would it be obvious to modify any device discussed in any of the references to perform the functions of the management proxy of Claim 2.

(2) The Office Action cites no reference as disclosing the type of poll message recited in Claim 2

Claim 2 recites that the poll message “request[s] from the management proxy any available management requests applicable to the network entity.” **The Office Action admits on page 22 that *Green* and *Davies* teach no such poll message. Yet, the Office Action fails to allege any other reference as teaching the poll message of Claim 2.** Nor do any of the other cited references appear to teach such a feature. The Office Action is clearly in error.

(3) *Davies* “poll message” is not received by a management proxy

Claim 2 recites that a poll message from a network entity is received at a management proxy. The Office Action alleges that *Davies* teaches such a step in *Davies* at col. 11, lines 16–30. The Office Action is mistaken. This passage of *Davies* teaches that an interface 761 receives an SNMP Poll Request 751 from the poller. ***Davies*' interface 761 is not a management proxy.** Nor is Poll Request 751 sent from a network entity for which interface 751 is storing management requests.

In summary, *Davies* teaches nothing more than that a poll messages may be received by interfaces. *Davies* does not teach the type of poll message recited in Claim 2. *Davies* does not teach the receipt of the poll message by a management proxy from a network entity. In fact, since *Davies* features nothing like the poll message of Claim 2, *Davies* therefore cannot even suggest that certain steps should be performed in response to the poll message of Claim 2.

(4) *Davies* does not teach “storing said management request in the management proxy while awaiting a poll for the management request from the network entity.”

Claim 2 also recites “storing said management request in the management proxy while awaiting a poll for the management request from the network entity.” The Office Action alleges that *Davies* teaches such a feature at col. 10, lines 61–66, because “the connection request is stored until the poller sends a Get request command.”

Davies contains no such teaching. The cited passage only states that an “input module 701 stores information concerning interface 764.” **The information stored is not a “management request.”** Nor is there any evidence that this information is stored “while awaiting a poll message.” While input module 701 may later receive an SNMP Get Request 755, the Get request has absolutely no relationship to the information stored concerning 764—certainly *Davies* says nothing about storing this information “until” the Get request 755 is received. In fact, as explained above, the SNMP Get Request 755 is not even a poll message within the meaning of Claim 2, because it does not “request from the management proxy any available management requests applicable to the network entity.”

(5) *Green*’s “connection request” is received from the requestor, not “created” at the proxy

Claim 2 recites “based at least upon the request from the management application, creating a management request.” The Office Action alleges that *Green* discloses a similar element in *Green* at col. 10, lines 8–12 because “a request has the source and destination addresses on it.” This statement has no relevance to creating a management request.

Moreover, the Office Action apparently contends that the “connection request” described in this passage is a “management request” within the meaning of Claim 2, but the plain meaning of these terms is entirely different. Even if the connection request is a management request, the connection request is not created by “the management proxy,” as recited in Claim 2. Rather, the “connection request is received from client 214 or server 216. Therefore, *Green* does not teach or suggest that the management proxy performs the step of “based at least upon the request from the management application, creating a management request.”

For at least the foregoing reasons, the combination of *Green*, *Davies*, and *Lavian* fails to provide the complete subject matter recited in independent Claim 2. Therefore, the combination

of *Green*, *Davies*, and *Lavian* would not have rendered Claim 2 obvious under 35 U.S.C. § 103. Reconsideration is respectfully requested.

CLAIM 54

Independent Claim 54 also recites features argued above with relation to Claim 34, although Claim 54 is expressed in another format. As discussed in section III above, *Lavian* fails to teach or suggest one or more features of Claim 54. The one or more features, identified above, which are missing from *Lavian*, are also missing from *Green*. In fact, the Office Action did not rely upon *Green* for teaching the one or more features. Consequently, the combination of *Lavian* and *Green* fails to teach or suggest one or more features of Claim 54. Thus, Claim 54 is patentable over the combination of *Lavian* and *Green*.

V. CONCLUSION

For the reasons set forth above, all of the pending claims are now in condition for allowance. The Examiner is respectfully requested to contact the undersigned by telephone relating to any issue that would advance examination of the present application.

A petition for extension of time, to the extent necessary to make this reply timely filed, is hereby made. If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to charge any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,
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